

The Examiner states that Raychaudhuri teaches the storing and reproducing of digital information within a compact disc having a recording layer and a first minimum in reflectance. The Examiner further states that Raychaudhuri discloses a substrate having a recording layer and light reflecting layer with the thickness of the recording layer and the reflecting layer being selected such that the R_{\min} reflectivity (first minimum reflectance) is greater than 70% for a laser wavelength of about 780 nm. Even if the Examiner's descriptions of the cited art are correct, the disclosure of Raychaudhuri noted by the Examiner is irrelevant to the present invention.

On page 2, lines 37-39, Raychaudhuri states as follows:

When an absorbing layer of very small thickness (much less than that corresponding to R_{\min}) is used, the reflectivity is high, but such structure is not useful for recording purposes because of low thermal efficiency.

The meaning of the above-cited description is easily understood by referring to the Fig. 1 of Raychaudhuri (prior art). The reflectance is higher if the thickness is much smaller than the thickness showing the R_{\min} reflectivity (first minimum reflectance).

Applicants note that the absorbing layer (recording layer) of Raychaudhuri is mainly disclosed to be a metal oxide layer (see Raychaudhuri, the Abstract), which is known to have a relatively low sensitivity.

Raychaudhuri further states on page 2, lines 41-43, as follows:

To produce useful recording elements, therefore, requires materials which will produce >70% reflectance with thickness larger than this minimum useful thickness.

Therefore, the “invention” of Raychaudhuri resides in the following characteristic features (Raychaudhuri, page 3, lines 11-13):

- a) The optical recording layer having at least two sublayers of different compositions; and
- b) The thickness of the optical recording layer and the reflecting layer being selected such that the R_{\min} reflectivity (first minimum reflectance) is about or greater than 70% for a laser wavelength of about 780 nm.

Applicants note that the thickness of the optical recording layer and the reflecting layer of Raychaudhuri is selected not such that the thickness is greater than 70% of the thickness showing the R_{\min} reflectivity (first minimum reflectance), but such that the R_{\min} reflectivity (first minimum reflectance) is made to show greater than 70% for a laser wavelength of about 780 nm.

Feature b) of the invention of Raychaudhuri is easily understood by referring to Fig. 3 of Raychaudhuri and Feature a). Apparently, Raychaudhuri has succeeded in enhancing the R_{\min} reflectivity (first minimum reflectance) from approximately 50% (see Raychaudhuri, Fig. 1) to 70% or greater by employing the optical recording layer having at least two sublayers of different compositions. This is the characteristic feature of the invention of Raychaudhuri.

In contrast, the recording layer of Applicants' recordable disc is a dye layer having a thickness in the range of 40% to 90% of a thickness corresponding to an optical path which gives the first minimum reflectance. The concept of the proposed thickness of Applicants' invention is illustrated in the Figure of Applicants' specification, as shown by the shadow area.

In view of the above, Applicants respectfully submit that it is readily apparent that Raychaudhuri teaches an inventive concept which distinctly differs from the inventive concept of the present invention. Further, the teachings of Hurditch do not overcome the deficiencies in the disclosures of Raychaudhuri. Moreover, even if the cited references are combined, it is respectfully submitted that it would not have been obvious to one of ordinary skill in the art to select Applicants' claimed recordable digital video disc, groove characteristics and reflectance and recording dye layer characteristics.

For the above reasons, it is respectfully submitted that the subject matter of claims 1-20 is neither taught by nor made obvious from the disclosures of Raychaudhuri and Hurditch and it is requested that the rejection under 35 U.S.C. §103(a) be reconsidered and withdrawn.

II. Conclusion

In view of the above, Applicants respectfully submit that their claimed invention is allowable and ask that the rejection under 35 U.S.C. §103 be reconsidered and withdrawn. Applicants respectfully submit that this case is in condition for allowance and allowance is respectfully solicited.

If any points remain at issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the local exchange number listed below.

Applicants hereby petition for any extension of time which may be required to maintain the pendency of this case. The USPTO is directed and authorized to charge all required fees,

Request for Reconsideration Under 37 C.F.R. § 1.111
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except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

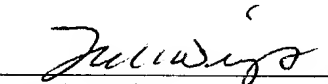
Respectfully submitted,

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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CUSTOMER NUMBER



Lee C. Wright
Registration No. 41,441

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